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The IEEE

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It is not necessary to inform the North Jersey Section when you change your mailing address. The NEWSLETTER and other section mailings use a list provided by IEEE's national headquarters in New York. This means the Section has no need to maintain a mailing list or addressing plates. Section membership records are changed when Headquarters notifies us.

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Mr. Outside And Mr. Inside IEEE

On Friday, October 21st, the North Jersey Section will host an open meeting and discussion with Irwin Feerst, P.E. and Dr. David Lewis as our guests.

It's difficult to provide a title to this meeting due to the broad involvement of both of our guests in issues that effect the engineering profession.

Irvine Feerst, via his Committee of Concerned Engineers, has been involved in not only prodding IEEE, in almost all areas concerning E.E.s but in some cases has beaten IEEE to the punch in support of his fellow engineers. Irwin, a Professional Engineer with spirit, heart and stamina has functioned outside IEEE. He writes and publishes a monthly newsletter dedicated to engineers. He and his committee have been involved for nearly 12 years.

Dr. David Lewis came to IEEE's USAB as a Congressional Fellow in 1979 and moved through IEEE as a Task Force Volunteer. Dr. Lewis or "Mr. Inside" chaired committees and Task Forces of USAB. David was chairman of the "Career Activities Council (CAC)" (1982-1983) thus gaining a seat on the USAB. As CAC chairman he was responsible for the Task Forces on; Age Discrimination, Patent Rights, Pensions, Career Maintenance, Manpower, etc.

David Lewis has just resigned his position with USAB stating emphatically that he was "fed up" with the lack of support for career issues by the majority of USAB and its chairman.

This meeting should clear up some

questions about USAB and volunteer involvement, identify friends and foes of engineers and resolve whether involvement is practical or not. Maybe, a new society is the answer? Perhaps more support is required or a parallel effort might be called for. Join us and let's hear your ideas.

Time: 8 PM, Friday, October 21, 1983.
Place: ITT Auditorium, 500 Washington Ave., Nutley, N.J.

Application Of Programmable Controllers

As its first meeting of the 1983-84 season, the NJ Control System Society Chapter has organized a practical hands-on training program on the use and application of programmable controllers.

The session will consist of a short technical discussion by Mr. Eric Fraistat of Square D Company followed by a hands-on use of the PC's. The program is expected to provide an in-depth knowledge of the PC's.

There is no admission charge, and the meeting will start at 6:30 PM and is expected to last approximately 2 hours.

Time: 6:30 PM, Thursday, October 20, 1983.

Place: Square D Co. Training Center, 55 Route 46, Pine Brook, N.J. (201) 575-7000.

Additional Information: Frank Kuhl, (201) 663-1381 (E); Kushal Jain (201) 265-2000 (D), (201) 263-9168 (E); Daniel Tuey (201) 567-9004 (D).

Local MTT/AP To Hear National Lecturer

B.A. Munk, National Lecturer for the IEEE Antenna and Propagation Society will be the speaker at the October 26th meeting of the NJ MTT/AP Chapter. Dr. Munk will discuss: "Scan Independent Phased Arrays."

About The Talk

Although various forms of Phased arrays have been built, a number of fundamental concepts remain to be understood and developed. Among these is the scan impedance which varies greatly with scan angle in what was believed to be "natures way." In fact, "proofs" to this effect have been readily presented in the general literature.

It will be shown, however, that it is possible and even practical to place a scan compensating device between the elements and free space such that a reduction of the impedance variation is obtained. It will also be shown that, by proper design a VSWR less than 1.6 for scan angles varying $\pm 80^\circ$ in any plane is possible. (Without scan compensation a VSWR of approximately 5 would result).

Finally, some interesting results from a recent investigation concerning the finiteness of phased arrays will be given.

About The Speaker

Benedikt A. Munk (M'61) was born in Fredericia, Denmark. He received the M.SC.E.E. degree from the Polytechnical Institute of Denmark, Copenhagen, Denmark, in 1954, and the Ph.D. degree in electrical engineering from Ohio State University, Columbus 1968.

He joined the Antenna Group of Rohde and Schwarz, Munich, Germany, in 1956, where he developed several high-power TV transmitting antenna systems. Then, in 1959, he joined the A/S Nordisk Antenna Fabrik, Copenhagen, Denmark, where he was responsible for the development and design of commercial and special antennas. In 1961 he joined the Andrew Corporation, Chicago, Ill., where he was responsible for the hard and soft antennas for the guidance of the Titan II missiles. Later he was associated with Rockwell, Columbus, Ohio, as a Senior Research Engineer where he studied phase errors in circular apertures.

He is now a Professor in the Department of Electrical Engineering and a Supervisor in the ElectroScience Laboratory, Ohio State University. His interest include antennas, phased arrays, scattering, radomes, absorber designs and dichroic surfaces.

Dr. Munk is a member of Sigma Xi. He also holds several patents in the area of metallic radomes, phased arrays and antennas.

Time: 7:45 PM, Wednesday, October 26, 1983.
Place: ITT Avionics Auditorium, 500 Washington Ave., Nutley, N.J.
Pre-Meeting Dinner: 6 PM, Jade Fountain, Clifton, N.J.
Dinner Reservations: Dick Snyder (201) 492-1207 or Willy Schmidt (201) 284-2255.

Scene Labeling In Computer Vision

The second meeting of the Systems, Man & Cybernetics Chapter will be held on Thursday, October 13, 1983. Dr. Robert A. Hummel of the Courant Institute will speak on "Scene Labeling in Computer Vision".

About The Talk

Computers and robots can use vision to access information about the environment and to aid in making decisions. By processing digitized images, objects can be recognized and labeled according to their interpretation. How should knowledge be represented and learned by a computer vision system? In this talk, a local parallel iterative scheme, called relaxation labeling, will be presented. Using examples, it will be shown that relaxation labeling can be used to reduce ambiguity and achieve consistency in scene labeling.

About The Speaker

Robert A. Hummel (M'82) received the B.A. degree in mathematics from the University of Chicago and the Ph.D. degree in mathematics from the University of Minnesota. While in school, he spent summers at the Picture Processing Lab of the Computer Science Center at the University of Maryland. He has also been employed at Stanford Research Institute and the Signal and Image Processing section of Honeywell's Systems and Research Center in Minneapolis, Minnesota.

From 1980 to 1982 he was a Courant Institute Instructor in the mathematics

department of New York University's Courant Institute of Mathematical Sciences. He is currently an Assistant Professor of Computer Science in the Courant Institute, and a member of the Robotics and Vision Research Section there. He also serves as a consultant to Martin Marietta Aerospace in Orlando, and is an adjunct faculty member of IBM's System Research Institute in New York.

In mathematics, Dr. Hummel's research interests include variational methods for the study of partial differential equations, fluid mechanics, and foundations of thermodynamics.

In computer vision, Dr. Hummel is known as one of the co-developers of relaxation labeling methods for scene analysis. He has also worked in image enhancement, image representation and feature operator design.

Time: 7:30 PM, Thursday, October 13, 1983.
Place: ITT Auditorium, 500 Washington Avenue, Nutley, NJ.
Pre-Meeting Dinner: 5:30 PM, Jade Fountain Restaurant, Clifton, NJ.
Additional Information: Ben Ashjari (201) 420-5614, Allen Gorin (201) 757-1600, Andrew Meyer (201) 645-5468 and Ed Van Winkle (201) 939-8304.

Personal Computers

The Chinese-American Academic and Professional Association with the cooperation of the New York Section of the IEEE Computer Society will hold a November 4 conference on "Personal Computers."

The event, scheduled for New York City at the New York Statler, will offer over 30 papers on hardware, software, peripherals, communication, office automation, and Chinese language processing.

Registration fees prior to the conference will be \$15.00 for members of CAAPA and IEEE and \$20.00 for non-members. At-conference fees will be \$20.00 for members and \$25.00 for non-members. Student fee is \$10.00. Luncheon price is \$19.00 in advance with Conference Registration and \$21.00 at the conference.

All inquiries on conference activities should be addressed to C.M. Liu, IBM Watson Research Center, P.O. Box 218, Yorktown Heights, N.Y. 10598; (914) 945-1491.

PACE NEWS

Professional Activities Committee for Engineers

By R. Tax

PACE Reps Shoot Down AAES Again!

At the 1983 National PACE Conference, IEEE volunteers from all points in the U.S. sacrificed a Labor Day weekend with the hope of, in some way, enhancing the future of the U.S. E.E.'s. Of course, not all appear to have the same goals in mind.

This year, however, it was again resolved to drop all support of AAES. (See "PACE CONFERENCE" in this issue.) If you recall, the North Jersey Executive Committee also wrote to members of IEEE's Board of Directors requesting that we discontinue our relationship with AAES.

This year the IEEE's budget for AAES/ABET is approximately \$370,000. For our money, we were, at least, supposed to get AAES to inform us of their activities. We were not informed! USAB Task Force for AAES was to evaluate their performance. The Government Activities Council chairman, Russel Drew, was selling us AAES a year ago. This year he is still selling us AAES with the same promise of restructuring from within. More bucks for more rhetoric---no change and no improvement.

The facts are plain, AAES is a society that is unfriendly to engineers. They have done more harm than good. Their Engineering Affairs Council approved the Manpower Testimony prepared by IEEE members and the AAES board of governors, chaired by Professor Robert Saunders, turned around and disavow it.

Don't expect any changes. AAES will be with us for a long time. Our letters did no good. The National PACE members resolution will do no good. The Board members of IEEE have not been responsive to the needs and requests of the Membership.

Changes and improvements must come from the local IEEE Sections. It is entirely in the hands of our membership. We must take every advantage to flex our muscle. If the U.S. Activities Board and the IEEE Board will not change and be responsible we will change the Board.

Report On National PACE Conference

The 1983 National Professional Activities Committees for Engineers (PACE) Conference of the IEEE United States Activities Board (USAB), held in Phoenix, September 2-5, included: a day-long workshop on enhancing leadership effectiveness, presentations on USAB challenges in the second decade of USAB, and discussions of USAB political involvement as well as manpower issues. At the close of its meeting, the PACE leaders also passed several resolutions to be submitted to the entire PACE membership for its con-

sideration. In addition, several USAB Awards for Professional Activities were presented.

National PACE Chairman Joseph A. Edminister welcomed participants to the September 3 leadership effectiveness workshop, noting that the workshop leader, James C. Selman, would "help us understand ourselves better in our volunteer positions." Selman described "action conversations" that can be completed as well as ideas that can be implemented--all enabling leaders to lead better. He urged participants to focus on action, practice forms of expression and ways of seeking commitment, as well as to evaluate results that occur.

In a presentation on September 4, USAB Chairman Edward J. Doyle described USAB's growing acceptance in the Nation's Capital: "Over the past 10 years, we have become a strong force in Washington, especially considering the small dollar amount we spend there compared to other organizations. Both sides of our efforts--the technical advice we give and the positions we take to enhance the welfare of our members and all engineers--contribute to our reputation. The two efforts are complementary, and the while is more than the sum of the parts. More and more, we are finding Congress asking us for advice on issues, a demonstration of our growing reputation."

In a parallel session the same day, USAB Government Activities Council Chairman Russell C. Drew and Frank Cummings discussed "Opportunities and Limitations of Political Involvement." They listed the following guidelines for representing USAB in Congress, before the Executive Branch, and in state legislatures: (1) "encourage participation, but make individuals aware of the limitations that need to be heeded while wearing the USAB hat"; (2) make distinctions among technical, legislative, and political involvement--in order to abide by the law; and (3) make distinctions between individual freedoms and institutional responsibilities in lobbying.

At the conclusion of the National PACE Conference on September 5, the 127 PACE leaders supported the following resolutions to be considered by the entire PACE membership: (1) that a Task Force be created to address the issue of how engineers who wish to form their own businesses may be assisted by the IEEE; (2) "that inasmuch as the USAB was constituted specifically for measures serving U.S. members, no actions of the USAB may be overruled by the Board of Directors or by any other member of instrumentality"; (3) "that the Chairman of the USAB and Vice President for Professional Activities be selected from members with demonstrated USAB or PACE experience"; and (4) "that inasmuch as IEEE provides substantial financial support for and sends delegates to AAES, but has not received the anticipated benefits of this support, be it resolved that: IEEE fulfill any present firm financial commitment to AAES, and then cease financial support; and IEEE cease sending delegates to AAES when the termination of financial support compels us to do so."

Finally, USAB Awards for Professional Activities were given: the *USAB Award for Professionalism*, to Larry Dwon; the *USAB Citation of Honor*, to Valdemar Bodin and Arthur N. Greene; and the *USAB Regional Professional Activities Award*, to John Sees (Region 3) and David V. Serreyn (Region 4).

CORRECTION NOTED

The September issue provided the names and addresses of our Congressmen and U.S. Senators to assist you in your correspondence with these representatives. Unfortunately a misprint was made. Congressman's Robert G. Torricelli (D-NJ), 317 CHOB, Washington, D.C. 10515 name was misspelled. Please correct your list.